

A
Please add the following new claims:

19. (New) A process for the recovery of lactic acid or products thereof from an aqueous solution containing free lactic acid and at least one lactate salt at a total concentration of at least 5%, said process comprising the steps of:

- (a) extracting at least 70% of the free lactic acid from said aqueous solution by contacting said solution with a basic extractant, to form a lactic acid-containing extract and a lactic acid-depleted, lactate salt-containing aqueous solution;
- (b) separating said lactic acid-containing extract from said depleted aqueous solution;
- (c) stripping the extracted lactic acid from said extract to form a solution of lactic acid and a stripped extractant;
- (d) recovering lactic acid or products thereof from said lactate salt in said lactic acid-depleted aqueous solution by a method comprising extraction with a basic extractant, substantially as obtained in step (c), to form lactic acid-containing extractant; and
- (e) using said lactic acid-containing extractant from step (d), substantially as is, as said basic extractant in step (a).

20. (New) A process according to claim 19, wherein the ratio between said free lactic acid and said lactate salt is between 1:9 and 5:1.

21. (New) A process according to claim 19, wherein the ratio between said free lactic acid and said lactate salt is between 1:9 and 3:1.

22. (New) A process according to claim 19, wherein said basic extractant comprises a portion

of lactic acid and said solution is contacted with said extractant to form an extract comprising lactic acid in an amount greater than said portion and a lactic acid-depleted, lactate salt-containing aqueous solution.

23. (New) A process according to claim 19, wherein the ratio of free lactic acid to lactate salt is up to 2:1.

24. (New) A process according to claim 19, wherein the basic extractant used in step (a) comprises at least 3% lactic acid extracted in a previous step.

25. (New) A process according to claim 19, wherein said aqueous solution is concentrated by water evaporation prior to step (a).

26. (New) A process according to claim 19, wherein said aqueous solution containing free lactic acid and lactate salt is a result of fermentation.

27. (New) A process according to claim 19, wherein said lactate salt is selected from the group consisting of calcium lactate, sodium lactate and ammonium lactate.

28. (New) A process according to claim 19, wherein said basic extractant in step (a) has a basicity corresponding to pKa lower than 7.

29. (New) A process according to claim 19, wherein:
said basic extractant in step (a) is recycled from a previous step;

said lactic acid-loaded extract obtained in step (a) is stripped to form a solution of purified lactic acid and said stripped extractant;

 said stripped extractant obtained in step (c) is used for the recovery of lactic acid from said lactate salt in step (d); and

 the lactic acid-comprising extract formed in step (d) is used for extraction of free lactic acid in step (a).

30. (New) A process according to claim 19, wherein said recovery of lactic acid from said lactate salt in step (a) is effected under CO₂ pressure.

31. (New) A process according to claim 19, wherein said recovery of lactic acid and products thereof from said lactate salt in said lactic acid-depleted aqueous solution is achieved by using an acid stronger than lactic acid.

32. (New) A process according to claim 30, wherein said stronger acid is sulfuric acid, and a sulfate salt is formed as a by-product.

33. (New) A process according to claim 19, wherein said recovery of lactic acid and products thereof from said lactate salt in said lactic acid-depleted aqueous solution is achieved through the use of electric energy.

34. (New) A process according to claim 19 wherein step d comprises